

 **Wouter H. van Geffen**¹, **Torsten G. Blum**², **Stefano Aliberti**^{3,4}, **Kevin G. Blyth**⁵, **Clementine Bostantzoglou**⁶, **Amy Farr**⁷, **Bogdan Grigoriu**⁸, **Georgia Hardavella**⁹, **Rudolf M. Huber**¹⁰, **Nick Maskell**¹¹, **Gilbert Massard**¹², **Najib M. Rahman**¹³, **Daiana Stolz**¹⁴ and **Jan van Meerbeek**¹⁵

 torsten-gerriet.blum@helios-gesundheit.de

 @EuroRespSoc

Editorial

Continuous professional development: elevating thoracic oncology education in Europe

Thoracic oncology encompasses a broad spectrum of primary tumour entities originating from various pulmonary, tracheobronchial, pleural, mediastinal and chest wall tissues or distinct cell types within these compartments. Lung cancer represents by far the most frequent malignant tumour within the thoracic cavity, and is the most common type and largest killer among all cancers worldwide. Lung cancer leads mortality statistics in Europe, accounting for at least one fifth of all cancer-related deaths [1]. In addition, lung cancer causes a significant burden of symptoms in a population of patients with high comorbidity, providing significant challenges to national healthcare systems in the European Union, with the highest overall costs among all cancer types [2–4]. Contrary to the general stigma applied to lung cancer patients, where they are often assumed to suffer from a self-inflicted disease, it is now estimated that up to 10–20% of lung cancer patients are never-smokers [5, 6]. Even if numerically far lower, the remaining <5% of primary thoracic malignancies other than lung cancer challenge thoracic oncology specialists, as well general pulmonologists, often in daily practice, be they pleural mesotheliomas, thymic or neuroendocrine tumours, sarcomas or rare entities such as germ-cell tumours [7, 8].

Epoch-making progress has been made recently in thoracic oncology after decades of only minor improvements regarding prognosis. Nowadays, detailed molecular tumour profiling has led to personalised diagnostic-therapeutic sequences.

In addition, immunotherapy is developing as the most exciting and fundamental turning point in the history of lung cancer treatment. In 2009, when this step-change in highly effective therapeutic approaches was not yet foreseeable, the European Respiratory Society (ERS) implemented the far-sighted decision to create its own Thoracic Oncology Assembly. The first step of a detailed, forward-looking action plan was launched in 2010 [9]. In subsequent years, the role of the pulmonologist as pilot and partner in thoracic oncology has been introduced by the American Thoracic Society and the ERS [10].

Against this background, the Thoracic Oncology Assembly has been able to create a basis for standard educational formats and activities in line with the overall ERS strategy over the last few years. Amongst other initiatives, particularly the HERMES (Harmonised Education in Respiratory Medicine for European Specialists) programme for Thoracic Oncology, this has provided a comprehensive template in the field and is recognised worldwide as a role model [11–13]. Given the currently hyperdynamic environment, the Thoracic Oncology Assembly now faces the fascinating opportunity to promote an adapted action plan. While scientific, diagnostic and therapeutic advances are evolving rapidly, the European routine care landscape in thoracic oncology is characterised by a vast heterogeneity in available resources as well as in responsible professionals. The field of systemic therapies for patients with thoracic malignancies is one clear example: in

Cite as: van Geffen WH, Blum TG, Aliberti S, *et al.* Continuous professional development: elevating thoracic oncology education in Europe. *Breathe* 2019; 15: 279–285.



@ERSpublications

The @EuroRespSoc launches a new thoracic oncology continuous professional development programme <http://bit.ly/31ShuTp>



CrossMark



© ERS 2019

about half of European countries, the involvement of pulmonologists in systemic therapy is essential, contrasting with a significant number of nations in which pulmonologists are neither specifically trained nor active in this area [14]. Scientific progress does not pay any attention to currently established core pneumological skills in thoracic oncology. Rather, it may be envisaged that endoscopic methods will become insignificant in the medium term through the ongoing evolution of sometimes co-equal noninvasive diagnostic measures, namely the increasing maturity of liquid biopsies [15]. The advent of high-quality data demonstrating mortality reduction with lung cancer screening poses a separate but enormous challenge in quality control, implementation and rational delivery of a programme, which may transform our approach to lung cancer. Thus, there is to date an inadequately addressed need for continuous professional development (CPD) among pulmonologists to keep pace with the revolutionary trends in thoracic oncology.

An innovative campaign towards a joint and vivid educational platform in thoracic oncology

The answer to these demanding challenges is firstly one of communication. Analogous to the ERS master plan for other respiratory disease areas, our present educational thoracic oncology platform will be transformed stepwise from a fixed masterpiece to a dynamically adapting up-to-date platform. This new and unique platform is meant to arouse true thirst for knowledge in both general and specialised clinicians, and furthermore, to enable realistic, targeted CPD tailored to personal needs and individual professional career stages.

This document highlights the essential steps from the development towards the aspired implementation of the new ERS educational programme in thoracic oncology, and provides insights into the underlying CPD syllabus, planned educational contents and formats as well as specific communication strategies.

From our mission to strengthen and improve the diagnosis and care of thoracic malignancies in Europe, we envisage an adaptive and evidence-based CPD matrix based on multidisciplinary education. Our educational campaign seeks to cover the entire continuum of thoracic malignancy. We aim to provide attractive educational formats to all physicians and allied health professionals with an interest in thoracic oncology, independent of original discipline, grade of specialisation or current career status. Multidimensional collaboration within and outside the ERS is key to achieve these ambitious goals, namely by:

- Horizontal linkage with other related ERS assemblies

- Ensuring multiprofessionality and patient representation by incorporating allied respiratory professionals and the European Lung Foundation, respectively
- Cooperation with other dedicated international partner societies in the field of thoracic oncology (*i.e.* the European Society of Radiology, the European Society of Thoracic Surgeons and the International Association for the Study of Lung Cancer)
- Vertical liaison with respiratory societies and thoracic oncology services on the national and local levels, aiming to set up a harmonised framework of thoracic oncology education and its better implementation throughout Europe, both in countries with higher and lower financial capacities

To adequately meet the varying interests and expectations of the aforementioned targeted individuals, we will perform regular need assessments *via* surveys and other social media means, from which we will derive target group-specific educational formats. Feedback loops will be used to improve the future quality of our CPD programme, including the involved faculty. Likewise, we will constantly track and appraise new scientific and political developments in the field of thoracic oncology in order to provide up-to-date and evidence-based professional development.

Contextual basis and educational formats

We will use our thoracic oncology CPD syllabus as the contextual basis of our educational programme. This recently developed catalogue stretches from carcinogenesis, through symptoms, imaging, multidisciplinary team care, systemic therapy and malignant pleural effusion, covering the thoracic oncology trajectory in 32 modules as shown in table 1. Each module has been created *via* a fixed route: design, creation, internal revision, adaptation, external revision and final adaptation. Each module will be maintained and regularly updated according to future developments by a faculty composed of early career members and senior scientific specialists in thoracic oncology.

The platform used to provide these thoracic oncology educational modules is a comprehensive and adaptive international learning hub with the application of new digital techniques provided by the ERS. We will apply new and well-established ERS educational formats, particularly the following.

- Electronic learning: continuing medical education (CME) online modules and CME tests
- ERS courses: skills and online
- Online and printed publications: *ERJ Open Research*, the *European Respiratory Review*, *Breathe* and the *ERS Monograph*, with a

Table 1 *Module-based CPD training*

Module 1	Carcinogenesis, immunology and defence mechanisms
Module 2	Tobacco: risk factors and epidemiology
Module 3	Indoor and outdoor pollution
Module 4	Respiratory hazards associated with occupational factors
Module 5	Asbestos-related diseases
Module 6	Lung cancer screening
Module 7	Signs and symptoms
Module 8	Imaging techniques
Module 9	Bronchoscopy
Module 10	Advanced endoscopy
Module 11	Thoracoscopy and pleural diagnostics
Module 12	Evaluation of patient fitness for diagnostics and therapy
Module 13	Pathology
Module 14	Multidisciplinary team and multidisciplinary team meeting
Module 15	Thoracic surgery
Module 16	Radiotherapy
Module 17	Systemic pharmacotherapy
Module 18	Immunotherapy
Module 19	Rehabilitation
Module 20	Smoking prevention and cessation
Module 21	Palliative care including treatment of tumour-related symptoms and complications
Module 22	Patient and family support
Module 23	Management of paraneoplastic syndromes
Module 24	Thromboembolic disease in thoracic oncology
Module 25	Thoracocentesis including chest tube and tunnelled indwelling pleural catheter
Module 26	Common side effects of systemic therapies and their management
Module 27	Common radiation-induced side effects and their management
Module 28	Solitary pulmonary nodules
Module 29	Malignant pleural mesothelioma
Module 30	Mediastinal tumours
Module 31	Common metastatic pulmonary tumours
Module 32	Malignant pleural effusion

longer-term aim of introducing an *ERS Handbook of Thoracic Oncology*

- Events: ERS International Congress, satellite meetings, research seminars, ERS Live and Best of ERS
- Online blogs: ERS Respiratory Digest
- Social media: quizzes
- HERMES examinations

We will involve prestigious senior faculty and Europe's top-tier thoracic oncology services, but also provide committed early career members with sufficient opportunities to participate in our educational formats, since the latter represent our future.

A general description of the named ERS educational formats can be found on the ERS website: <https://www.ersnet.org/professional-development/cpd/cpd-thoracic-oncology>. An outline of our planned thoracic oncology-specific educational formats in 2019/2020 is depicted in table 2. The educational platform of our Thoracic Oncology Assembly, with regular updates, can be viewed on the ERS website as well.

Education recognition

We aim to gain education recognition in multiple ways. First, high quality of each module should be pursued; then, we aim to obtain international,

Table 2 Activity programme

	Get involved	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020
ERS Congress	Suggest topics and sessions to your Assembly leadership	Submit your challenging cases and abstracts		Dedicated programme track (Madrid, Spain)		Submit your challenging cases and abstracts		Dedicated programme track (Vienna, Austria)	
Online courses	Open to applications			Essentials of modern lung cancer care		Solitary pulmonary nodule	Calendar sheets in malignant pleural diseases		
Skills courses/ training programmes	You can apply with your institution to run skills-based courses			Multidisciplinary care in thoracic oncology (Athens, Greece) EBUS training programme (Amsterdam, the Netherlands)		Thoracic ultrasound training programme (Odense, Denmark) Thoracic ultrasound training programme (Oxford, UK) Thoracic ultrasound training programme (Amsterdam, the Netherlands)	Practical pleural skills (Bristol, UK) Multidisciplinary care in thoracic oncology (Warsaw, Poland) Thoracic ultrasound training programme (Bristol, UK) EBUS training programme (Amsterdam, the Netherlands) EBUS training programme (Heidelberg, Germany)		Multidisciplinary care in thoracic oncology (Antwerp, Belgium) EBUS training programme (Athens, Greece)
Research seminars	Open to applications		New biomarkers, molecules and therapeutic sequences for non-small cell lung carcinoma in the era of precision medicine				Challenges and research opportunities for lung cancer screening and early detection in Europe		

Table 2 Continued

	Get involved	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020
Courses[#]		Potentially operable lung cancer						Pleura, mediastinum, rare tumours	Lung transplantation
Satellite symposia							Advances in the management of thoracic tumours		
Respiratory Digest	You can send in your own digest regarding a recent published, high-impact paper		Pembrolizumab in patients with advanced non-small cell lung cancer						
Webinars	One webinar per quarter; you choose the topic, we will deliver the expert			Low-dose CT screening for early detection of lung cancer	Diseases caused by nontuberculous mycobacteria	Topics of your choice from Q1 2020			
Social media cases	We will quiz you frequently; your chance to excel and win prizes					Launch in Q1 2020			
CME cases	Submission open to all Assembly members								

Q: quarter; EBUS: endobronchial ultrasound; CT: computed tomography. #: in collaboration with the European Society of Thoracic Surgeons.

standardised quality certifications, such as CME. Such recognition is an important step in the implementation strategy and will strengthen the communication strategy, both of which are essential to reach out to as much as possible of the target audience. Similar to the successfully established sleep medicine programme [16], we strive to facilitate implementation of our educational initiative into existing national training programmes for thoracic oncology. This will allow recognition of elevating international standards in this important and rapidly changing field of respiratory medicine. It will also allow the certificate of completion of this CPD programme to be a quality-measuring instrument when employing respiratory physicians or researchers from abroad, and thus promote the transfer of knowledge inside Europe and beyond.

Communication

In an age of transition from analogue towards digital tools, a digital platform is essential to communicate with the target audience and the participants. The ERS already has an excellent basis for this activity to enhance participation and recognition of the thoracic oncology CPD programme. We envision stretching out from the ERS base to our international, national and local partners, seeking fruitful and cordial collaboration as well as avoidance of needless duplication of work. Together, we can use all digital and social media to deliver the message and the education itself. Using the available ERS communication channels, we can already be strong, but through partnership, we will be even stronger and more far reaching.

Affiliations

Wouter H. van Geffen¹, Torsten G. Blum², Stefano Aliberti^{3,4}, Kevin G. Blyth⁵, Clementine Bostantzoglou⁶, Amy Farr⁷, Bogdan Grigoriu⁸, Georgia Hardavella⁹, Rudolf M. Huber¹⁰, Nick Maskell¹¹, Gilbert Massard¹², Najib M. Rahman¹³, Daiana Stolz¹⁴, Jan van Meerbeeck¹⁵

¹Dept of Pulmonary Medicine, Medical Centre Leeuwarden, Leeuwarden, The Netherlands. ²Lungenklinik Heckeshorn, Helios Klinikum Emil von Behring, Berlin, Germany. ³Dept of Pathophysiology and Transplantation, University of Milan, Milan, Italy. ⁴Respiratory Dept, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico, Milan, Italy. ⁵Glasgow Pleural Disease Unit, Queen Elizabeth University Hospital Glasgow, Glasgow, UK. ⁶7th Respiratory Medicine Dept and Asthma Center, Athens Chest Hospital "Sotiria", Athens, Greece. ⁷European Respiratory Society, Lausanne, Switzerland. ⁸Service de médecine interne, Institut Jules Bordet, Brussels, Belgium. ⁹10th Dept of Respiratory Medicine, Athens Chest Diseases Hospital "Sotiria", Athens, Greece. ¹⁰Thoracic Oncology Centre Munich, University of Munich, Munich, Germany, member of the German Center for Respiratory Research (DZL-CPC-M). ¹¹Academic Respiratory Unit, University of Bristol, Bristol, UK. ¹²Service de Chirurgie Thoracique, Hôpitaux Universitaires de Strasbourg, Strasbourg, France. ¹³Oxford Centre for Respiratory Medicine, University College, Oxford, UK. ¹⁴Clinic for Respiratory Medicine and Pulmonary Cell Research, University Hospital Basel, Basel, Switzerland. ¹⁵Dept of Pulmonology, Antwerp University Hospital, Edegem, Belgium.

Conflict of interest

W.H. van Geffen reports a grant from Novartis (an institutional grant for an investigator-initiated trial), outside the submitted work. T.G. Blum has nothing to disclose. S. Aliberti reports grants and personal fees from Bayer Healthcare, Aradigm Corporation, Grifols, INSMED and Chiesi, personal fees from AstraZeneca, Basilea, Zambon, Novartis, Raptor, Actavis UK Ltd and Horizon, outside the submitted work. K.G. Blyth reports a research grant for a pre-edit and edit trial in malignant effusion, plus consultancy work, from Rocket Medical UK Ltd. C. Bostantzoglou has nothing to disclose. A. Farr is an employee of the European Respiratory Society. B. Grigoriu has nothing to disclose. G. Hardavella has nothing to disclose. R.M. Huber reports personal fees from AstraZeneca Germany, Boehringer Ingelheim Germany, BMS Germany, Lilly, Pfizer Germany, Roche Germany, MSD Germany, Takeda, and Celgene, outside the submitted work. N. Maskell. G. Massard has nothing to disclose. N.M. Rahman reports grants and personal fees from Rocket Medical UK, and personal fees from BD Medical and Lung Therapeutics USA, outside the submitted work. D. Stolz has nothing to disclose. J. van Meerbeeck has nothing to disclose.

References

1. International Agency for Research on Cancer. Cancer today: data visualization tools for exploring the global cancer burden in 2018. <http://gco.iarc.fr/today/home>. Date last accessed: 23 April 2019.
2. Alt-Epping B, Staritz AE, Simon ST, *et al*. What is special about patients with lung cancer and pulmonary metastases in palliative care? Results from a nationwide survey. *J Palliat Med* 2012; 15: 971–977.
3. Ellis J. The impact of lung cancer on patients and carers. *Chron Respir Dis* 2012; 9: 39–47.
4. Luengo-Fernandez R, Leal J, Gray A, *et al*. Economic burden of cancer across the European Union: a population-based cost analysis. *Lancet Oncol* 2013; 14: 1165–1174.
5. Barta JA, Powell CA, Wisnivesky JP. Global epidemiology of lung cancer. *Ann Glob Health* 2019; 85: 8.
6. Sun S, Schiller JH, Gazdar AF. Lung cancer in never smokers – a different disease. *Nat Rev Cancer* 2007; 7: 778–790.
7. Siegel RL, Miller KD, Jemal A. Cancer statistics, 2018. *CA Cancer J Clin* 2018; 68: 7–30.

8. Tanvetyanov T. Understanding the uncommon thoracic tumors. *Cancer Control* 2006; 13: 253.
9. Sculier JP, Vansteenkiste J, Schonfeld N, *et al.* Thoracic oncology in Europe: the ERS action plan by the Thoracic Oncology Assembly. *Eur Respir J* 2010; 36: 1227–1228.
10. Gaga M, Powell CA, Schraufnagel DE, *et al.* An official American Thoracic Society/European Respiratory Society statement: the role of the pulmonologist in the diagnosis and management of lung cancer. *Am J Respir Crit Care Med* 2013; 188: 503–507.
11. Gamarra F, Boffetta P, De Ruysscher D, *et al.* Thoracic Oncology HERMES syllabus: setting the basis for thoracic oncology training in Europe. *Eur Respir J* 2013; 42: 568–571.
12. Meert AP, Noel JL, Gamarra F, *et al.* The thoracic oncology specialist: curriculum recommendations in thoracic oncology training. *Eur Respir J* 2016; 48: 628–631.
13. Gamarra F, Noel JL, Brunelli A, *et al.* Thoracic oncology HERMES: European curriculum recommendations for training in thoracic oncology. *Breathe* 2016; 12: 249–255.
14. Blum TG, Rich A, Baldwin D, *et al.* The European initiative for quality management in lung cancer care. *Eur Respir J* 2014; 43: 1254–1277.
15. Saarenheimo J, Eigeliene N, Andersen H, *et al.* The value of liquid biopsies for guiding therapy decisions in non-small cell lung cancer. *Front Oncol* 2019; 9: 129.
16. Mitchell S, Riha RL, Rohde G, *et al.* Continuing professional development: introducing the ERS International Certificate in Respiratory Sleep Medicine. *Breathe* 2017; 13: 11–14.